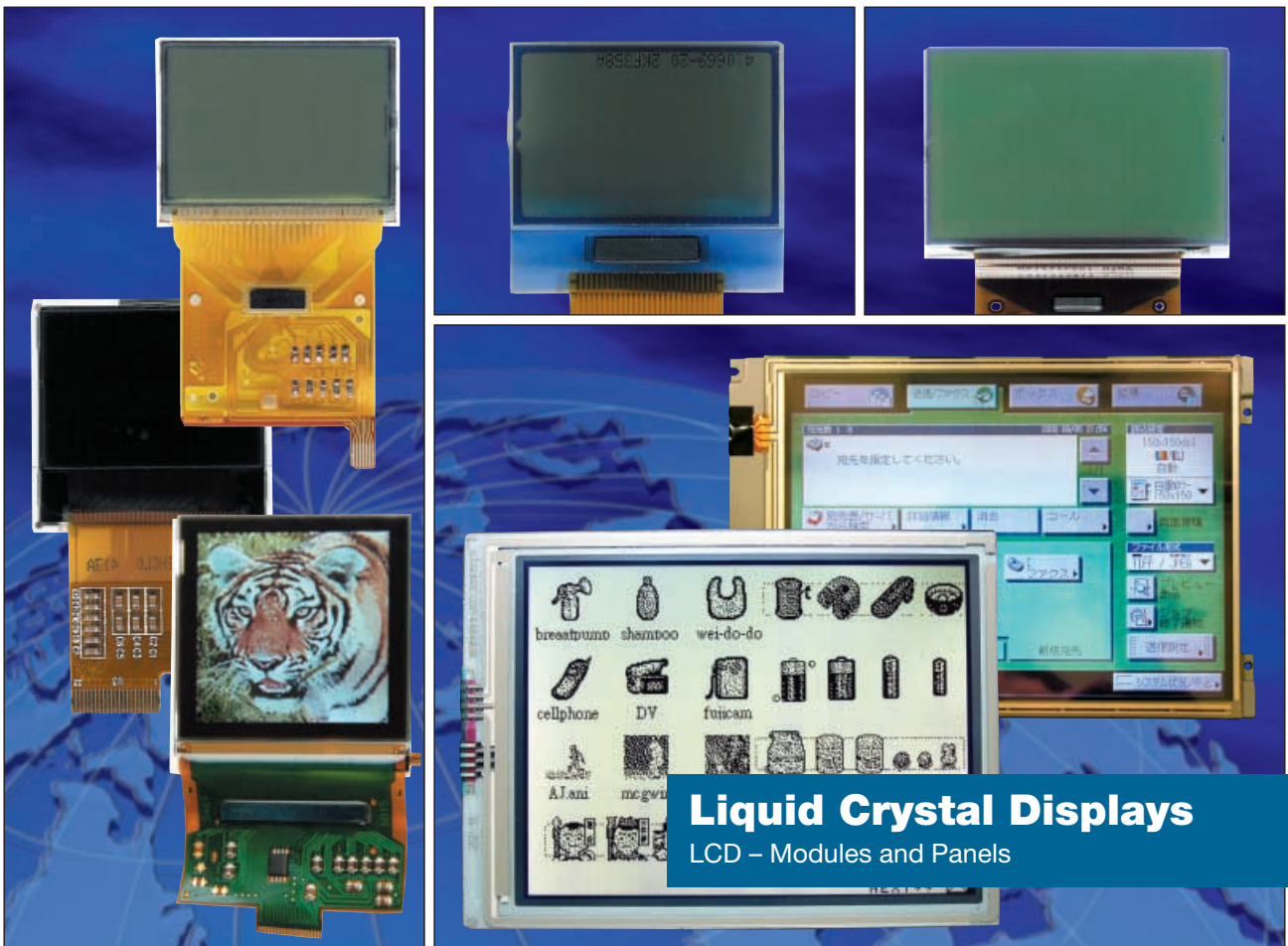


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Liquid Crystal Displays

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We are pleased to give you the requested information.

Dot Matrix Modules (Standard Programme)

Backlight Identification Character
Technology Identification Character
Series No.
Lines
Characters per line
PICVUE Character Module

Dot Matrix Modules (Complementary Programme)



Display Size (Characters/ Lines)	Model No.	Module Size (w x h x d1/d2) d1/d2 = without/with LED	Viewing Area	Character Size	Duty Rate	Technology TN	STN grey	STN yellow	FSTN b/w	Backlight none	LED	EL	Fea- tures
						Identification Character				Ident. Character			
8 x 2	AC082A	58.0 x 32.0 x 10.0/13.8	35.0 x 15.0	2.95 x 5.55	1/16	N	G	Y	-	A	L	-	
8 x 2	TM82A	58.0 x 32.0 x 12.0/13.1	35.0 x 15.0	2.45 x 5.00	1/16	A	D	B	-	A	C	-	5.0V
16 x 1	AC161J	151.0 x 40.0 x -----/14.7	120.0 x 23.0	6.00 x 14.5	1/16	N	G	Y	-	A	L/Q	E	big
16 x 2	AC162A	85.0 x 29.5 x 10.0/14.5	64.0 x 17.2	2.95 x 5.55	1/16	N	G	Y	-	A	L/Q	E	3.3V*
16 x 2	AC162B	80.0 x 36.0 x 10.0/14.5	64.0 x 17.2	2.95 x 5.55	1/16	N	G	Y	-	A	L/Q	E	3.3V*
16 x 2	AC162C	80.0 x 36.0 x 10.0/14.5	64.0 x 17.2	2.95 x 5.55	1/16	N	G	Y	-	A	L/Q	E	3.3V*
16 x 2	AC162D	84.0 x 44.0 x 10.0/14.5	64.0 x 17.2	2.95 x 5.55	1/16	N	G	Y	-	A	L/Q	E	3.3V*
16 x 2	AC162E	122.0 x 44.0 x 10.5/14.5	99.0 x 24.0	4.84 x 8.06	1/16	N	G	Y	-	A	L/Q	E	3.3V*
16 x 2	TM162X	53.0 x 20.0 x 8.1/----	36.0 x 10.0	1.85 x 3.15	1/16	A	D	B	-	A	-	-	mini
16 x 4	AC164A	87.0 x 60.0 x 11.0/14.0	61.4 x 25.0	2.95 x 4.75	1/16	N	G	Y	-	A	L	E	3.3V*
16 x 4	EDM1604B	115.0 x 70.0 x 10.0/----	88.0 x 44.2	4.45 x 8.95	1/16	√	√	√	-	√	-	-	big
20 x 1	TM201A	182.0 x 33.5 x 12.7/15.0	154.3 x 15.3	6.70 x 11.5	1/16	A	D	B	-	A	C	-	big
20 x 2	AC202A	116.0 x 37.0 x 10.0/14.5	83.0 x 18.5	3.20 x 5.55	1/16	N	G	Y	-	A	L/Q	E	3.3V*
20 x 2	AC202B	180.0 x 40.0 x 9.5/15.0	149.0 x 23.0	6.00 x 9.66	1/16	N	G	Y	-	A	L/Q	E	3.3V*
20 x 2	AC202D	182.0 x 60.0 x -----/14.0	147.0 x 35.2	5.90 x 12.7	1/16	-	-	Y	-	-	L	-	big
20 x 4	AC204A	97.2 x 60.0 x 10.5/14.5	76.0 x 25.2	2.95 x 4.75	1/16	-	G	Y	-	-	L/Q	-	3.3V*
20 x 4	AC204B	146.0 x 62.5 x 10.5/14.5	123.0 x 42.5	4.84 x 9.22	1/16	-	G	Y	-	A	L	E	3.3V*
24 x 1	TM241A	118.0 x 36.0 x 11.0/15.0	93.5 x 15.8	3.20 x 8.20	1/16	A	D	B	-	A	C	-	big
24 x 4	EDM2404A	119.4 x 56.9 x 10.0/----	91.2 x 29.9	2.95 x 5.55	1/16	√	√	√	-	√	-	-	big
24 x 8	EDM2408A	120.5 x 81.5 x 10.0/----	91.8 x 52.3	3.20 x 5.55	1/36	-	√	√	-	√	-	-	big
80 x 4	EDM8004A	289.0 x 88.0 x 10.0/----	227.0 x 34.0	2.38 x 5.42	1/36	-	√	√	-	√	-	-	big

Manufacturer: AC/AD = AMPIRE CO., LTD.,
EDM = DALIAN DONGFU COLOR DISPLAY CO., LTD.,
TM = TIANMA MICROELECTRONICS CO., LTD.

Q = white or blue LED backlight (height 11.0 mm)
*optionally 3.3 V or 4.5 V

We are pleased to give you the requested information.

Graphic Modules (Complementary Programme)



Display Size (Columns/ Lines)	Model No.	Module Size (w x h x d1/d2) d1/d2 = without/with LED	Viewing Area	Duty Rate	Technology STN STN FSTN grey yellow b/w Ident. Character	Backlight LED EL CCFL Ident. Character	Controller	Comments
96 x 32	AF09632B	37.8 x 19.0 x 1.6/---	33.0 x 13.2	1/32	- - F	- - -	NT7501	COF, 3.3V
112 x 64	AF11264C	39.0 x 29.4 x ---/4.5	33.6 x 22.3	1/65	- - F	L - -	S6B1713	COF, 3.0V
122 x 32	AG12232A	84.0 x 44.0 x 10.5/15.5	60.5 x 18.5	1/32	G Y F	L E -	SED1520	dual power
122 x 32	AG12232B	65.8 x 27.1 x 4.7/8.4	60.5 x 18.5	1/32	G Y F	L E -	SED1520	dual power
122 x 32	TM12232A	84.0 x 44.0 x 9.5/13.5	60.0 x 18.5	1/32	D B C	L - -		dual power
122 x 32	TM12232E	69.2 x 31.8 x 8.0/11.0	57.2 x 17.2	1/32	D B C	L - -		dual power
128 x 64	AG12864E	75.0 x 52.7 x 6.8/9.0	60.0 x 32.5	1/64	G Y F	L/Q - -	KS0108	DC/DC
128 x 64	AO12864T	57.0 x 39.4 x 1.9/---	52.6 x 27.5	1/65	- - F	- - -	ST7565	COG, 3.3V
128 x 64	AT12864I	58.0 x 38.5 x 1.9/---	54.0 x 31.0	1/65	- - F	- - -	SED1565	TCP, 3.0V
128 x 64	AT12864M	65.9 x 46.6 x ---/5.5	60.0 x 39.0	1/65	- - F	L - -	SED1565	TCP, 3.0V
128 x 128	AF128128C2	36.3 x 38.9 x 1.4/---	30.5 x 32.0	1/128	- - F	- - -	HD66750	COF, 3.3V
128 x 128	AT128128H1	36.3 x 38.9 x 1.4/---	30.5 x 32.0	1/128	- - F	- - -	HD66750	TCP, 2.8V
128 x 128	AF128128K	72.4 x 70.0 x ---/5.5	54.0 x 50.0	1/128	- - F	L - -	HD66750	COF, 2.8V
128 x 160	AF128160A	57.8 x 42.0 x ---/2.2	37.0 x 48.6	1/160	- - F	- E -	UC1611	COF, 3.0V
132 x 65	AT13265B	54.2 x 33.8 x 2.4/---	50.0 x 28.3	1/65	- - F	- - -	SED1565	TCP, 3.0V
160 x 80	AG16080A/B	100.0 x 54.0 x 11.3/15.3	72.3 x 37.8	1/80	G Y F	L/Q E -	T6963C	DC/DC
160 x 128	AF160128A	55.8 x 46.9 x 2.5/2.5	51.8 x 40.4	1/128	- - F	- E -	SED15E06	COF, 2.7V
160 x 128	TM160128A	129.0 x 102.0 x 12.8/---	101.0 x 82.0	1/128	D B C	- - -	T6963	dual power
160 x 160	AT160160A	69.0 x 69.5 x 6.0/7.0	60.0 x 60.0	1/160	- - F	Q E -	SED1335*	Touch*, DC/DC
160 x 240	AT160240B1	70.0 x 90.5 x 4.8/---	58.9 x 77.8	1/240	- - F	- - -		dual power
240 x 128	AG240128A/C/G	144.0 x 104.0 x 12.0/15.0	114.0 x 64.0	1/128	G Y F	IL/Q E -	T6963C*	DC/DC
240 x 128	AG240128B	170.0 x 103.2 x 14.0/14.0	132.0 x 76.0	1/128	G Y F	- E C	T6963C	DC/DC
240 x 160	AT240160B	76.0 x 57.0 x 6.0/7.0	67.6 x 47.5	1/160	- - F	- E -	SED1335*	Touch*, DC/DC
240 x 160	AT240160D	83.8 x 56.2 x 2.5/3.3	61.6 x 42.5	1/160	- - F	- E -		Touch*, DC/DC
240 x 160	AF240160E	81.0 x 54.0 x ---/5.5	63.0 x 42.5	1/160	- - F	L - -	UC1611	COF, 2.8V
240 x 320	AT240320A	72.5 x 90.0 x 5.5 /---	62.0 x 81.8	1/240	- - F	- E -		TCP, dual power
320 x 240	AG320240A1	167.1 x 109.0 x 11.0/11.0	122.0 x 92.0	1/240	G Y F	- - C		Touch*
320 x 240	AG320240F	160.0 x 109.0 x 11.0/11.0	122.0 x 92.0	1/240	G Y F	- E C	SED1335*	Touch*, DC/DC
320 x 240	AT320240Q	93.3 x 73.0 x 6.4/9.1	62.0 x 81.8	1/240	- - F	Q E -	SED1335*	Touch*, 3.3V*
320 x 240	TM320240A	143.0 x 96.8 x 12.0/---	104.0 x 79.3	1/240	D B C	- - -		dual power

Manufacturer: AD/AG/AT = AMPIRE CO., LTD.,
TM = TIANMA MICROELECTRONICS CO., LTD.

TCP = Tape Carrier Package (controller IC on carrier foil)
COG = Chip On Glass
COF = Chip On Foil
DC/DC = with DC/DC converter available (single supply voltage)

Q = white LED backlight
*optionally



Liquid Crystal Displays

Please ask our expert

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We are pleased to give you the requested information.



Passive Colour LCD (Colour STN)

Display Format (Columns/ Lines)	Model No.	Active Area Size Diagonal	Module (w x h x d1/d2) d1/d2 = without/with LED	Viewing Area	Backlight	Comments
96 x 64	PVG090601HCL	1,06"	30,3 x 29,4	24,0 x 16,7	LED white	transflective, 4k colours, Ctrl. IST3101
240 x 160	PVG241601HCL	1,4"	67,6 x 34,1	32,8 x 25,4	LED white	transmissive, 4k colours
128 x 128	PVG121205HCL	1,6"	36,0 x 44,2	32,7 x 29,3	LED white	transmissive, 65k colours, S6B33B0
128 x 128	AR128128MCIQW-H	1,7"	40,4 x 40,3	32,7 x 32,7	LED white	transflective, 4k colours, S1D15G10
128 x 128	PVG121204HCL	1,75"	38,5 x 63,2	33,4 x 33,4	LED white	transmissive, 65k colours, S6B33B0
128 x 160	PVG121604HCL	1,8"	34,7 x 48,7	36,0 x 30,5	LED white	transmissive, 65k colours, S6B33B0
128 x 160	PVG1216061CL	1,88"	40,1 x 55,5	32,0 x 39,4	LED white	transmissive, 65k colours, S6B33B0
128 x 160	PVG1216011CL	1,88"	38,9 x 61,0	32,0 x 39,4	LED white	transflective, 65k colours, S6B33B0
128 x 160	PVG1216031CL-0511	1,9"	38,5 x 51,9	42,4 x 33,1	LED white	transflective, 4k colours, HM17CM4096
128 x 160	PVG1216031CL-0681	1,9"	38,5 x 51,9	42,4 x 33,1	LED white	transflective, 65k colours, AR3302
160 x 160	PVG161605HCL	2,6"	62,2 x 76,8	51,3 x 51,3	LED white	transflective, 65k colours, driver only
160 x 160	PVG161606HCL	2,7"	74,6 x 62,1	52,0 x 52,0	LED white	transflective, 65k colours, touch, driver only
240 x 320	PVG322403HCL	3,1"	60,0 x 78,8	49,0 x 71,3	LED white	transflective, 65k colours, touch, driver only
240 x 320	PVG3224051CC	4,0"	76,8 x 100,5	62,8 x 82,8	CCFL	transmissive, 65k colours, touch, driver only
320 x 240	AR320240GRTCW	5,7"	154,6 x 114,8	118,2 x 89,4	CCFL	transflective, 4k colours, driver only
320 x 240	PVG322406HCC	5,7"	154,6 x 114,8	118,0 x 89,4	CCFL	transmissive, 65k colours, driver only
640 x 480	PVG6448011CC	8,2"	203,0 x 142,5	167,0 x 125,3	CCFL	transmissive, 65k colours, touch, driver only

Manufacturer: AR = AMPIRE CO., LTD.
PVG = PICVUE ELECTRONICS, LTD.

Customer Specified Panels and Modules



PICVUE

LCD Technologies

• Monochrome:	TN	Twisted Nematic	For duty rate up to 1/16 (segment displays)
	HTN	High Twisted Nematic	For duty rate 1/8...1/16 (segment displays)
	STN	Super Twisted Nematic	For duty rate from 1/16 (graphic displays)
		"grey mode"	For white backlight (LED, CCFL, EL)
		"yellow mode"	For LED backlight (yellow-green)
	FSTN	Film Compensated STN	For displays with high resolution, fine structures
	TDF	"black/white mode"	For white backlight (LED, CCFL, EL)
		Transflective Diffusor Film	For displays with highest demands on readability
		"paper white"	
• Colour:	Colour STN		

Assembling Techniques Glass to Controller/ Driver

• Pins	For contact density from 2.0 mm
• Zebra	For contact density from 0.4 mm
• Heatseal	For contact density from 0.2 mm
• TCP (Tape Carrier Package, Controller on Carrier Foil)	Very compact design
• COG (Chip On Glass)	Very compact design
• COF (Chip On Foil)	Very compact, passive components included

Backlight

• LED (Light Emitting Diodes)	For small and middle displays – all colours, white
• EL (Electroluminescence Foil)	For small, middle and big displays
• CCFL (Cold Cathode Fluorescence Lamp)	For big displays

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